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<110> Manoharan, Muthiah

<120> Nuclease Resistant Chimeric Oligonucleotides

<130> ISIS-4804

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<170> PatentIn version 3.1

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(19)
O-MOE 5meU

eature
(20)
ydroxy-2-pyrrolidinemethanol

ctcnnnnn   20

cial Sequence

Sequence

eature
21)
S

eature
1)
ydroxy-2-pyrrolidinemethanol

eature
2)
O-MOE 5meG

eature
3)
O-MOE 5meU

eature
4)
O-MOE A

eature
5)
O-MOE G

eature
6)
O-MOE A

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<223>  All P=S


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<223>  N= 2'-O-MOE 5meU


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nnnnnttcca cactcnnnnn                                                    20


<210>  32
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<223>  N= 2'-O-MOE 5meU


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<222>  (19)..(19)
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<220>
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<222> (20)..(20)
<223> N= 3'-deoxy-2'-S-phenyl-2'-thiocytidine

<400> 32
nnnnnttcca cactcnnnnn   20

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       cytosine


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nnnnnttcca cactcnnnnn                                              20


<210>  34
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<223>  N= 2'-deoxy-G-clamp


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tctcnctctc                                                        10


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<210> 38
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gngtanacgc   10

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<211> 10
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gcgtanangc                                                              10


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<220>
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<400>  41
gngtanacgc                                                              10


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<400>  43
atgnattctg cccccaagga                                          20


<210>  44
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<223>  N= G-clamp modification


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<220>
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atgcattctg nccccaagga                                              20


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<220>
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atgcattctg cnccccaagga                                             20

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atgcattctg ccnccaagga                                              20


<210>  48
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<210>  50
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<400>  50
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<210>  51
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<210>  54
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<223>  N= phenoxazine


<400>  54
ttttttttt tttttttn                                                       19
```

```
<210>  55
<211>  19
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Novel Sequence

<220>
<221>  misc_feature
<222>  (19)..(19)
<223>  N= G-clamp modification


<400>  55
tttttttttt tttttttttn                                                    19
```